

Abstract of the Disclosure

The invention provides for methods for producing pulp (comprising cellulose) and lignin from lignocellulosic material, such as wood chips. The methods involve acid 5 catalyzed hydrolysis. Lignocellulosic material having a relatively high moisture concentration can be used as the starting material. The lignocellulosic material is impregnated with an acid (preferably nitric acid) and heated. During the heating lignin is depolymerized at relatively low temperatures, and the acid catalyst is distilled off. The acid catalyst can be collected and recycled after impregnation and 10 heating. The lignocellulosic material is then digested in an alkaline solution under heat, dissolving the lignin and allowing the pulp to be removed. Acid is added to the black liquor to precipitate the lignin which is then removed. The resultant amber liquor can be further processed into other ancillary products such as alcohols and/or unicellular proteins.